

REMARKS

This is a complete response to the outstanding Office Action mailed July 17, 2007. Claims 1-3, 5, 9, 10, 11, 16, 18, and 20 have been amended herein. No new matter was added in claims 1-3, 5, 9, 10, 11, 16, 18, and 20. Support for claim 20 may be found in, for example, figure 1. Upon entry of the enclosed claim amendments, claims 1-20 remain pending in the present application.

I. Response to Claim Rejection -35 USC § 112

Applicant has amended claims 1-3, 5, 9, 10, 11, 16, 18, and 20 to correct informalities as suggested by the Examiner. Applicant respectfully requests reconsideration and withdrawal of claim objections.

A. Claims 1-15 and 20

Applicant appreciates the Examiner's comprehensive review of the claims. The Office has not provided evidence as to how one skilled in the art in view of Applicant's specification would take a different interpretation. However, in order to expedite prosecution Applicant has amended the claims 1 and 20 language to read, "the welding corresponds to laser welding with a laser beam, and the laser beam is directed to the flange part along a welding

path". Applicant respectfully requests reconsideration and withdrawal of the claim objections.

B. Claims 1 and 16

Applicant appreciates the Examiner's comprehensive review of the claims. The limitation discloses the location of the welding termination point. Applicant is introducing the external forces in the portion cited by the Office Action for the first time. Applicant is not requiring any specific direction of the intended force. Applicant is claiming a location of the termination point not be located in the locations of stress concentration between the mother member and attaching member due to intended external forces. If the Office wishes to maintain this rejection Applicant request the Office provide specific evidence and arguments as to why one skilled in the art in view of Applicant's specification would not understand the welding termination point being located at a place where no stress concentration occurs based on intended external forces on the mother member and the attaching member. Applicant respectfully requests reconsideration and withdrawal of the claim objections.

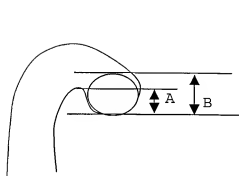
C. Claim 2

Applicant appreciates the Examiner's comprehensive review of

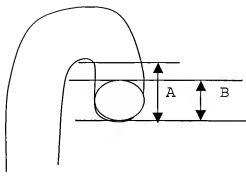
the claims. Applicant disagrees with the rejection. The Office has provided neither evidence nor explanation as to why the language is not clear. However, in order to expedite prosecution Applicant has amended the claim 2 language to read, "wherein the welding path is substantially C-shaped, and after the welding path is turned back, an end welding path after the turn back is longer than a crater produced in the welding termination point is provided to complete the welding termination point." Based on the understanding that the welding termination crater (Shown as a circle in the illustrative examples below) is incorporated within the welding path and is the end point of the welding path. The amended claim language clearly claims the end welding path (Identified as "length A") of the turn back portion of the C-shaped welding path to be longer than the crater (Identified as "length B") produced by the termination point (as shown in Example B and as not shown in Example A in which the A is larger than B).

Applicant respectfully requests reconsideration and withdrawal of the claim objections.

EX. A



EX. B



D. Claim 3

Applicant appreciates the Examiner's comprehensive review of the claims. Applicant has amended the claim language to better-described Applicant's claimed invention. Applicant's claim recites one round of the spiral-shaped welding path. Applicant's claim language clearly claims the spiral-shaped welding path having at least one 360-degree loop. Applicant respectfully requests reconsideration and withdrawal of the claim objections.

E. Claims 5, 9-11, 15 and 18

Applicant appreciates the Examiner's comprehensive review of the claims. Applicant has amended the claim language to particularly point out and distinctly claim Applicant's invention. Claim 15 appears to be referenced in error and Claim 3 appears to be to not have been cited even though Claim 3 incorporated a

similar rejected limitation. Applicant has amended claim 3, 5, 9-11, and 18 to particularly point out and distinctly claim Applicant's invention. Applicant respectfully requests reconsideration and withdrawal of the claim objections 5, 9-11, 15 and 18.

II. Response to Claim Rejections Based on Obviousness

In the Office Action, claims 1-5, 7-11, 16-18, and 20 have been preliminarily rejected as obvious under 35 U.S.C. § 103. Specifically claims 1-5, 7-11, 16-18, and 20 have been preliminarily rejected under 35 U.S.C. § 103 by Applicant's background information in view of reference DE19627913 (hereinafter '913) in further view of reference JP351058641A (hereinafter '641). Claims 1-5, 7-11, 16-18, and 20 have also been preliminarily rejected under 35 U.S.C. § 103 by Applicant's background information in view of reference JP401321084A (hereinafter '084) in further view of reference JP351058641A (hereinafter '641).

A. Rejection incorporating '913

Applicant's claim 1 recites, "the welding path being turned back before reaching the welding termination point, without

overlap between the welding start point and the welding termination point". Neither Applicant's background information nor '641 or '913 disclose, teach, or suggest this element of the claimed invention. Applicant's background information only acknowledges a straight weld path which does not turn back before reaching the welding termination point as shown in FIG. 4A.

The '913 reference arguably discloses a meandering weld which Applicant does not concede. '913 does not disclose, teach, or suggest the welding path being turned back before reaching the welding termination point. In addition, the motivation provided as to why one skilled in the art at the time of the invention would use the arguably meandering welding path over acknowledges straight weld path does not relate to the '913 reference.

The motivation cited in the '641 is specific to plate jointing and more specifically to joining three or more plates. The '641 recites, "the weld lines do not converge to the center part of the circular plate 20, the weld defects such as the concentration of impurities at the center part, the accumulation of residual stress, etc. are prevented." As shown in FIG. 6 of '641 the welding lines 22 of the welded butt joints do not intersect and are in a staged formation providing additional

strength. The teachings cited by the Office are associated with welded butt joints when joining multiple plates of the '641 reference. The motivation does not explain the use of the welding path for a lap joint and/or not used to join multiple plates of material that may benefit from the staggered formation as disclosed by '641 reference.

B. Rejection incorporation '084

The Office has not provided disclosure of reference teaching or suggesting of the welding path being turned back and not overlapping between the welding start point and the welding termination point. The '084A reference discloses the welding path returns on itself in the outer most square of Figure 4 with the termination point overlapping the start point. The Office has not provided disclosure of reference teaching the welding path being turned back and not overlapping between the welding start point and the welding termination point. No teaching or suggestion is provided for not overlapping the welding path in the '084A reference or '641 reference. The motivation cited in '641 does not suggest not overlapping between the welding start point and the welding termination point. The '641 reference discloses the welding lines connecting and thus overlapping between all the

joined plates (See welding lines 22, 31, 32, 24). The welding path extends all the way around the plate. In addition, for the same reason previously discussed with regard to application of the teaching of '641, the teaching is directed towards the use of the welding path for a butt joint and not a lap joint. The teachings used to join multiple plates of material that may benefit from the staggered formation of the plates do not relate to the '084 reference or Applicant's background teachings.

Therefore, for at least these reasons claims 1, 16, and 20 overcome the above 103 rejection. Applicant respectfully submits that for at least the above reasons claim 1, 16, and 20 should be allowed over the cited references. Applicant also respectfully submits that since claims 2-15 and 17-19 depend on independent claims 1 and 16, respectively, claims 2-15 and 17-19 contain all limitations of independent claims 1 and 16, respectively. Since independent claims 1 and 16 should be allowed, as argued herein, pending dependent claims 2-15 and 17-19 should be allowed as a matter of law for at least this reason. In re Fine, 5 U.S.P.Q.2d 1596, 1608 (Fed. Cir. 1988).


CONCLUSION

In light of the foregoing amendments and comments and for at least the reasons set forth above, Applicant respectfully submits that all objections and rejections have been traversed, rendered moot and/or accommodated, and that presently pending claims 1-20 are in condition for allowance. Applicant has responded to all of the Examiner's requests. Favorable reconsideration and allowance of the present application and the presently pending claims are hereby courteously requested. The examiner is invited to telephone the undersigned, Applicant's attorney of record, to facilitate advancement of the present application.

Respectfully submitted,

Makase et al.

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